

10/064,493

1. (Currently Amended) A two terminal device comprising:
a nucleation layer;
a nitride layer on said nucleation layer; and
a re-oxide layer on said nitride layer; and [.]
a conductor on said re-oxide layer;
wherein said nitride layer ~~and an interface between nitride layer and said re-oxide layer~~
~~include~~ includes electron traps.
2. (Currently Amended) The device in claim 1, wherein characteristics of said ~~carrier~~
electron traps control a voltage output of said device.
3. (Original) The device in claim 1, wherein a thickness of said nitride layer and said re-oxide layer control a voltage output of said device.
4. (Original) The device in claim 1, wherein said nitride layer and said re-oxide layer comprise one of a voltage regulator, voltage sensor, and memory device.
5. (Original) The device in claim 1, wherein said capacitor undergoes a trap filled limit voltage, such that a constant voltage is output for a plurality of currents.
6. (Original) The device in claim 5, wherein trap filled limit voltage events occur at different voltage levels, such that said device comprises a multi value voltage regulator.
7. (Currently Amended) A capacitor voltage regulator device comprising:
a nucleation layer;
a nitride layer on said nucleation layer; and
a re-oxide layer on said nitride layer; and [.]

10/064,493

a conductor on said re-oxide layer,

~~wherein said nitride layer and an interface between nitride layer and said re-oxide layer~~
~~include~~ includes electron traps, and

~~wherein characteristics of said carrier traps~~ a thickness of said nitride layer controls
~~control~~ a voltage output of said structure.

8. (Currently Amended) The device in claim 7, wherein a thickness of ~~said nitride layer and~~
~~said re-oxide layer control~~ controls a voltage output of said device.
9. (Original) The device in claim 7, wherein said capacitor undergoes a trap filled limit
voltage, such that a constant voltage is output for a plurality of currents.
10. (Original) The device in claim 9, wherein trap filled limit voltage events occur at
different voltage levels, such that said device comprises a multi value voltage regulator.
11. (Currently Amended) A method of manufacturing a capacitor structure, said method
comprising:
thermally growing a thermal nitride nucleation layer on a buried plate substrate;
performing a low pressure chemical vapor deposition (LPCVD) of silicon nitride on said
nucleation layer; and
re-oxidizing a top portion of said silicon nitride to form a re-oxide layer, ~~such that said~~
~~nitride layer and an interface between said silicon nitride layer and said re-oxide layer include~~
~~electron traps; and~~
forming a conductor on said re-oxide layer,
wherein said nitride layer includes electron traps.
12. (Original) The method in claim 1, wherein characteristics of said carrier traps control a
voltage output of said device.

10/064,493

13. (Original) The method in claim 11, wherein a thickness of said nitride layer and said re-oxide layer modulate a voltage output of said device.
14. (Original) The method in claim 11, wherein said nitride layer and said re-oxide layer comprise one of a voltage regulator, voltage sensor, and memory device.
15. (Original) The method in claim 11, wherein said capacitor undergoes a trap filled limit voltage, such that a constant voltage is output for a plurality of currents.
16. (Original) The method in claim 15, wherein trap filled limit voltage events occur at different voltage levels, such that said capacitor device comprises a multi value voltage regulator.